

REPTILES AND AMPHIBIANS

OF NORTH DAKOTA



NORTH DAKOTA GAME AND FISH DEPARTMENT



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Smooth green and red-bellied snakes: Matthew T. Smith

Reptiles and Amphibians of North Dakota

By Sandra Johnson



NORTH DAKOTA GAME AND FISH DEPARTMENT

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INTRODUCTION

Amphibians and reptiles live in all habitat types in North Dakota. They may be close by, even if you don't see them. Turtles and frogs swim on the bottom of wetlands and rivers, lizards scurry into burrows, and snakes slip away into tall grass. Although they may seem "creepy" to some people, they are all quite harmless, unless provoked, which may cause them to become aggressive in an attempt to defend themselves. In fact, amphibians and reptiles are very beneficial to the environment, serving as prey for other animals, and preying on critters sometimes undesirable to humans, such as rodents.

North Dakota has about 28 species of amphibians and reptiles. Herpetologists, or biologists who study these creatures, often discover small differences in a species, and may change the name of a species, or decide it should be two separate species. Depending on who you talk to, the exact number of species, or herps as they are sometimes collectively called, may vary. Regardless, North Dakota has very few species because of its cold climate, compared to someplace warm like Texas, which boasts more than 225 species.

WHAT ARE AMPHIBIANS?

North Dakota's amphibians are four-legged vertebrates that spend part of their life in water and part on land. Frogs, toads and salamanders are amphibians. Females are typically larger than males. Most lay eggs in water, which hatch into larvae and then undergo metamorphosis (i.e. lose their gills and develop lungs) into adult stage. They are cold-blooded (ectothermic) and rely on the environment to regulate body temperature. Amphibians survive North Dakota winters by hibernating at the bottom of wetlands, lakes or rivers and may even occasionally swim around below the ice. Others burrow deep into soil below the frost line, or in cracks or crevices in logs or rocks. Some amphibians may freeze, except for the vital organs, which have a high concentration of glucose or "antifreeze," preventing the animal from dying.



SANDRA JOHNSON

WHAT ARE REPTILES?

Reptiles are cold-blooded (ectothermic) vertebrates that lay eggs or give live birth and have scales or scutes (i.e. a bony plate such as a turtle shell). Lizards, turtles, snakes and even extinct dinosaurs are reptiles. Females

are typically larger than males. Several species of reptiles may give birth to live young versus laying eggs. Some lizards have a unique escape mechanism as their tail breaks away when grabbed by a predator. While the predator is amused with the twitching tail, the lizard escapes unharmed as the tail will grow back over time. Incubation temperature determines the sex of turtles (except for softshell turtles); high temperatures produce females and low temperatures produce males. Snakes constantly flick their tongue to sense their surroundings. Snakes have no external ear openings, but can pick up vibrations through the ground. Snakes will continue to grow throughout their life and as they grow, they shed their skin to allow for the increase in size.

RULES AND REGULATIONS

Kids, and even many adults, get excited when they find a frog or salamander, and sometimes even a snake, and think it would make a good pet. All amphibians and reptiles are defined as wildlife and under management of the state. Should that prevent a child from holding a toad while in nature? Certainly not, however, the animal should be left in its natural habitat and not brought home. A secondary reason for not bringing an animal home is because there are a number of diseases and fungi on the rise in the United States that amphibians and reptiles carry. Even if an animal appears healthy, it may have Salmonella, or other unidentified diseases. Or, if you have legally purchased pets at home and bring home a critter from the wild, place it in the same cage with infected pets, then later release the wild animal, you will spread the disease to otherwise healthy wildlife. Always wash your hands with soap and water after handling any animal.

HOW TO USE THIS GUIDE

This guide describes all amphibians and reptiles known to occur in North Dakota. Any species you find in nature that is not in the guide should be reported to the North Dakota Game and Fish Department. This includes potentially harmful species such as the bullfrog, or pets that may have been released by their owners, such as restrictor snakes. Never handle a snake if you are unsure of what species it is.

- **Snout to vent length:** the distance from the tip of the nose to the vent or the opening located on the underside of the animal at the base of its tail.
- **Head to tail length:** the distance from the tip of the head, or nose, to the tip of the tail.
- **Carapace length:** the distance from the front to the rear of the shell.



CHRIS GRONDAHL

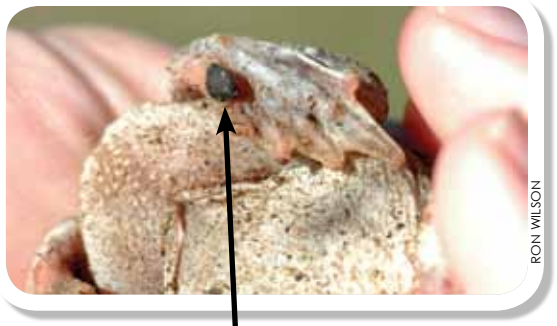
AMPHIBIANS

PLAINS SPADEFOOT



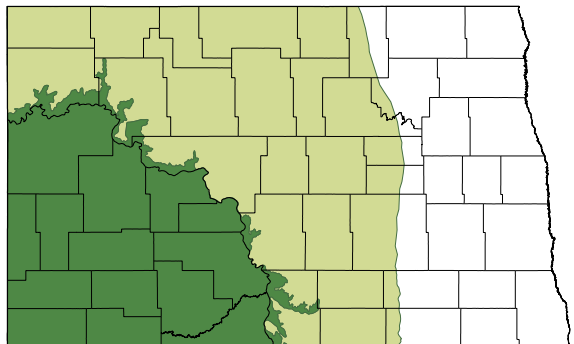
(Spea bombifrons)
Snout to vent length: 2-3 inches

The plains spadefoot is the most easily recognized toad in North Dakota. Its skin is smooth like that of a frog, and it has a distinct vertical pupil like that of a cat. Its color varies from a light cream, to gray or brown, and may have small orange spots. These toads inhabit dry grasslands, with sandy or loose soil primarily south and west of the Missouri River, although some scattered populations have been found in central and northern North Dakota. Their back feet have a digging spur (spade) used to burrow into the soil. They may burrow 3 feet or more underground until they hit a layer of moist soil. Spadefoots are known as explosive breeders. During warm summer months they emerge in the evening after a heavy rain to quickly breed in shallow pools. Females lay 2,000 eggs, which hatch in 2-4 days and tadpoles metamorphose into toadlets (i.e. small toads) within one month. By morning, adults are back underground awaiting the next heavy rain. Spadefoots eat a variety of small invertebrates.



RON WILSON

The digging spur 'spade' on hind foot.



Primary Range



Secondary Range

FUN FACT:

I'M THE FASTEST TO TURN
FROM A TADPOLE INTO A
FROG ... 30 DAYS!



RON WILSON



RON WILSON



CHRIS GRONDAHL

WOODHOUSE'S TOAD



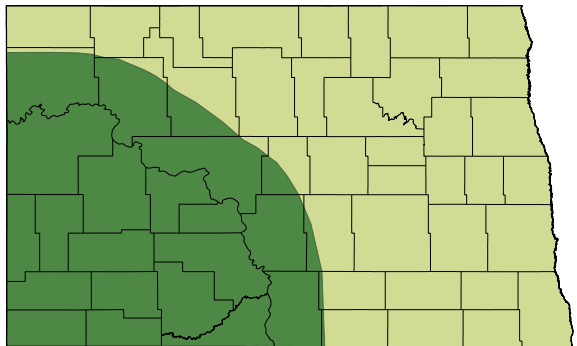
(Anaxyrus woodhousii)
Snout to vent length: 3-5 inches

Woodhouse's toads are North Dakota's largest toad. Its coloration varies from green to light brown, with a distinctive light stripe down the middle of its back. Their bellies are white to yellow and typically have no markings, but may have a single chest spot. The Woodhouse's toad is most abundant in southwestern and southern North Dakota, but may be found statewide in grasslands, wetlands, floodplains and back yards. They are commonly found at night near the base of yard lights where insects are abundant. Females lay up to 25,000 eggs. Woodhouse's toads are named after the 19th century explorer, surgeon and naturalist, Samuel Woodhouse. These toads were formerly called Rocky Mountain toads.



MATTHEW T. SMITH

FUN FACT:
WE LIKE TO LEAVE A
SIGN OF OUR PRESENCE
UNDER YARD LIGHTS
WHILE YOU ARE SLEEPING
... TOAD DROPPINGS!



Primary Range



Secondary Range



RON WILSON



CHRIS GRONDAHL



CHRIS GRONDAHL

GREAT PLAINS TOAD

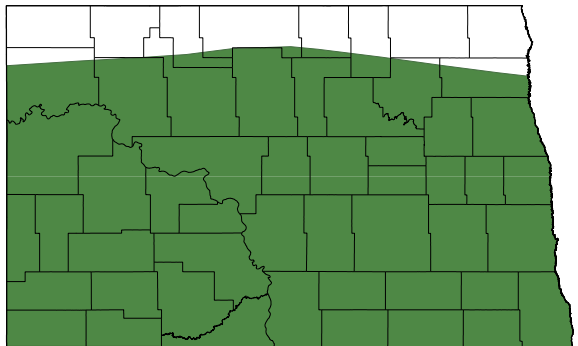


(Anaxyrus cognatus)
Snout to vent length: 2-4 inches

Great Plains toads are the only North Dakota toads with large, dark symmetrical blotches on their backs. Some toads may or may not have a light stripe down the middle of the back, and typically the belly has no markings, but may have a single chest spot. A lump or “boss” is present on the snout behind the nostrils. These toads inhabit grasslands of North Dakota except the northern counties bordering Canada. They are accomplished burrowers in loose soil and are found at night along roadsides or irrigation ditches where insects are plentiful. These toads only enter water to breed and may be found in the uplands far from any water. Females lay up to 20,000 eggs. Great Plains toads eat a variety of insects and worms.



FUN FACT:
I CAN INFLATE MYSELF
TO LOOK BIGGER SO
PREDATORS WON'T WANT
TO SWALLOW ME.



 Primary Range



SUZANNE L. COLLINS



SANDRA JOHNSON

AMERICAN TOAD



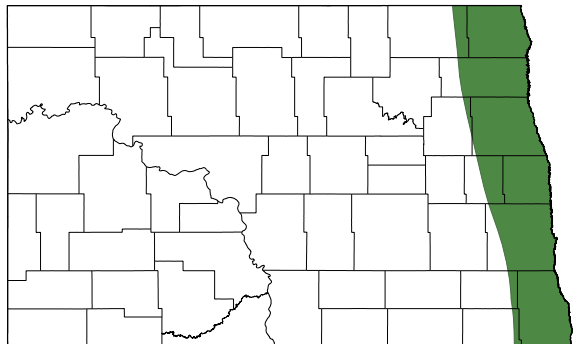
(Anaxyrus americanus)
Snout to vent length: 2-3.5 inches

American toads are primarily found in eastern North Dakota, but are rare in the state. Their coloration varies from brown, to brick red, to olive green. A light stripe may be found down the middle of the back and their bellies are heavily spotted with black. They do not have a lump or “boss” on the snout. They only have one or two large warts in each of their larger dark spots. The habitat of these toads varies, including mowed grassy yards, woodlands, or wherever there is an abundant supply of moisture and insects. Females lay up to 20,000 eggs. American toads will hybridize with Canadian toads.



SUZANNE L. COLLINS

FUN FACT:
WE ARE ONE OF THE MOST COMMON TOADS IN THE EASTERN UNITED STATES BUT ARE RATHER UNCOMMON IN NORTH DAKOTA.



 Primary Range



SUZANNE L. COLLINS



MATTHEW T. SMITH



SUZANNE L. COLLINS

CANADIAN TOAD



(*Anaxyrus hemiophrys*)
Snout to vent length: 2-3 inches

Canadian toads are also referred to as Dakota toads. In North Dakota they are found primarily east of the Missouri River. The coloration varies from green to brownish-red, with brownish-red warts. A light line may be found down the middle of the back. Canadian toads have heavily spotted bellies and a grooved boss on top of their head. These toads inhabit margins of lakes, ponds and prairie potholes and are not often found far from water. They are primarily nocturnal and are strong swimmers. To avoid capture they readily seek the safety of water. They can burrow into the ground using their hind feet, much like a spadefoot toad. Canadian toads will hibernate together in Mima mounds, or low, circular, natural mounds in the prairie.



MATTHEW T. SMITH



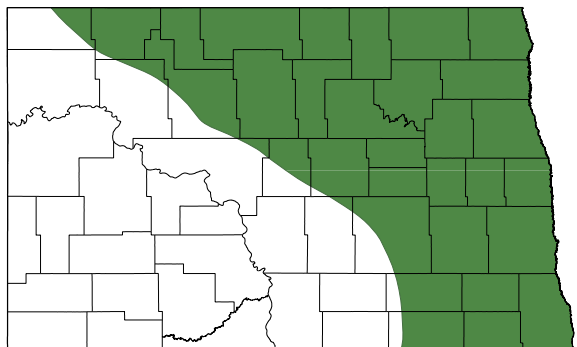
HOBERG AND GAUSE

FUN FACT:

TRUE OR FALSE:
TOUCHING A TOAD WILL
GIVE YOU WARTS.

FALSE

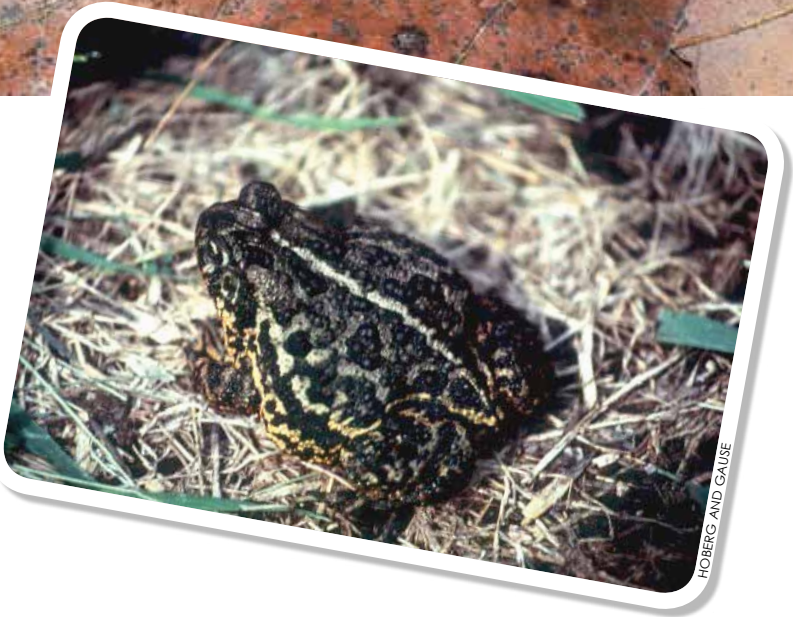
TOADS HAVE BUMPS
THAT ARE CALLED WARTS,
BUT HUMAN WARTS ARE
CAUSED BY A HUMAN
VIRUS.



Primary Range



SUZANNE L. COLLINS



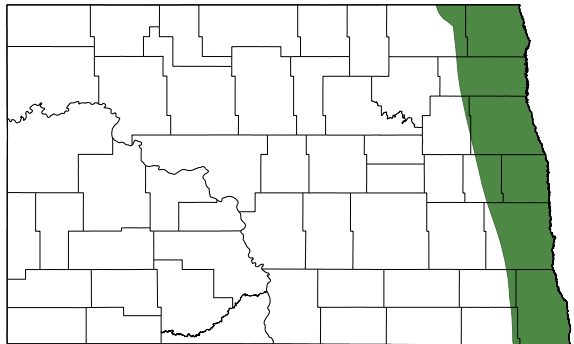
HOBERG AND GAUSE

GRAY TREEFROG AND COPE'S GRAY TREEFROG



(Hyla versicolor) and (Hyla chrysoscelis)
Snout to vent length: 1-2 inches

The two species of treefrogs in North Dakota are nearly indistinguishable visually, but each has a distinct call. Cope's gray treefrogs are slightly smaller than gray treefrogs. The gray treefrog is limited to wooded riparian habitat adjacent to or near water in eastern North Dakota, while Cope's gray treefrog is more often associated with prairie habitat. There is some debate among biologists which species is more prevalent in North Dakota. Treefrogs have the remarkable capacity to change color from gray to brown or green within just a few minutes. Gray treefrog skin is tougher, more warty, and grayer than Cope's gray treefrog. Their toes are tipped with adhesive discs, which enable them to climb and cling to smooth branches and leaves. They are often seen on roadways hunting for insects on warm, humid, summer nights. During the day they prefer shade and protection of trees and shrubs near water. Females lay up to 4,000 eggs. Their diet consists mainly of insects.



 Primary Range

FUN FACT:
OUR SKIN COLOR
CHANGES BASED
ON TEMPERATURE,
THE COLOR OF OUR
SURROUNDINGS, AND
ACTIVITY LEVEL.



LORRAINE A. MANZ



LORRAINE A. MANZ



LORRAINE A. MANZ

NORTHERN LEOPARD FROG



(Lithobates pipiens)
Snout to vent length: 2-4 inches

Northern leopard frogs are found throughout North Dakota in almost any body of water. They were once the most widespread frog in North America and although populations have declined, they are still abundant in North Dakota. Their color may vary from green to gray to brown, with large black spots, like a leopard. One rare color morph lacks spots (Burnsi). They are powerful swimmers and can leap 5-6 feet to avoid capture. These frogs are one of the first amphibians to emerge from hibernation in spring. They mate in almost any type of aquatic habitat and females lay up to 5,000 eggs attached to aquatic vegetation. Their diet includes insects, worms, other frogs, or just about anything within reach. Another name for the leopard frog is the meadow frog. During summer, frogs can be found far from water.



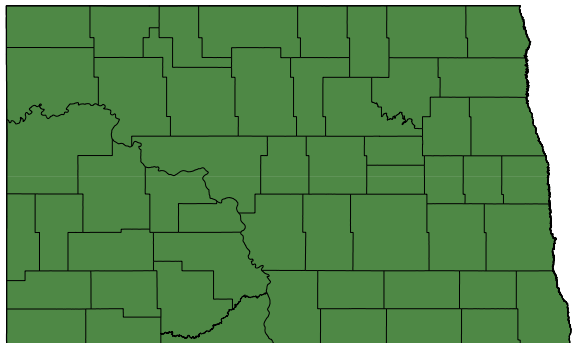
SANDRA JOHNSON



SANDRA JOHNSON

FUN FACT:

WE HIBERNATE UNDERWATER, BUT IF YOU ARE SPEARFISHING IN THE WINTER YOU MAY SEE US MOVING AROUND ON THE BOTTOM OF THE LAKE.



Primary Range



SANDRA JOHNSON



CRAIG BIRBLE



MATHEW T. SMITH

Color morph: Burnsi.

WOOD FROG



(Lithobates sylvaticus)
Snout to vent length: 1-3 inches

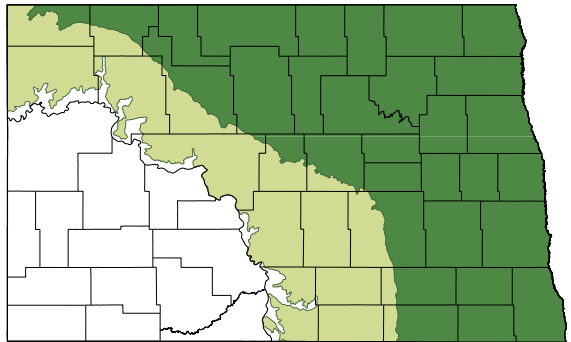
Wood frogs have a characteristic dark mask around the eyes. There is a great variation in skin color, from pink, to brown, to black. No matter the color, the dark mask is always present. They are found throughout northern and eastern North Dakota, usually near moist woodlands, and they are very reclusive. In winter, they hibernate under dead logs, piles of rocks, leaves, or grass litter. In spring, they are one of the first frogs to emerge from hibernation. Breeding takes place in small ponds and coulees where females lay 1,000 eggs. Their diet includes insects and worms. These frogs are found farther north than any other, sometimes in shallow ponds on the Canadian and Alaskan tundra.



SANDRA JOHNSON

FUN FACT:

TO SURVIVE WINTER, WE FREEZE ALMOST SOLID AND OUR HEARTS STOP BEATING. IN THE SPRING, WE THAW AND HOP AWAY.



Primary Range



Secondary Range



SUZANNE L. COLLINS



SANDRA JOHNSON

BOREAL CHORUS FROG



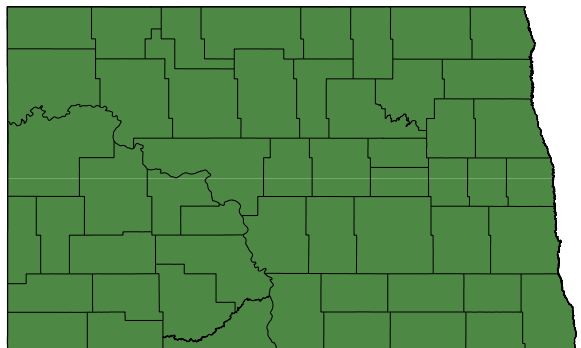
(Pseudacris maculata)
Snout to vent length: 1-1.5 inches

Boreal chorus frogs are North Dakota's smallest frogs. Colors range from buff to gray, or green, with three wide, dark stripes down the back. Chorus frogs have small adhesive discs like tree frogs, but they do not climb. These tiny frogs can be found statewide in grasslands, woodlands, agricultural fields and urban areas. In winter, they hibernate under dead logs, piles of rocks and leaves. In early spring, the males call in small bodies of shallow water. Their distinctive call has been described as a chirping sound. It can be duplicated by running your finger across the teeth of a pocket comb. Females lay up to 1,500 eggs in almost any type of aquatic habitat. Their diet consists of small insects.



SANDRA JOHNSON

FUN FACT:
IN MID-APRIL WE
START CALLING ... IT
SOUNDS LIKE RUNNING A
FINGER OVER A COMB ...
CRRREEEK ... CRRREEEK
... WE MIGHT BE SMALL
BUT WE ARE LOUD!



Primary Range



MATTHEW T. SMITH



MATTHEW T. SMITH



INDGF PHOTO

TIGER SALAMANDER (EASTERN, BARRED AND GRAY)



(Ambystoma tigrinum), *(Ambystoma mavortium mavortium)* and *(Ambystoma mavortium diaboli)*
Head to tail length: 6-9 inches, occasionally up to 13 inches

Tiger salamanders are found throughout North Dakota. As the name implies, tiger salamanders are usually bi-colored. One color describes the background, or body of the animal, while the other color describes the pattern. Background colors range from gray, black, bars, or blotches of various sizes, shapes and color, and a pattern of yellowish-brown spots that vary in size and shape. Unlike the mudpuppy, tiger salamanders have five toes on each hind foot. They are often seen at night after a heavy rainfall. In fall, they are commonly observed crossing roads in search of overwintering sites where they will hibernate underground. They live in almost any damp place; debris near water, damp cellars, and even small mammal burrows. Salamanders will eat almost anything and frequently pursue night crawlers. Some individuals never go through metamorphosis to become land-dwelling adults, and retain larval characteristics, including gills. They become sexually mature and may live their life completely underwater. These salamanders can grow larger than their land counterparts. This condition is known as neoteny. Because they retain gills, they may be falsely identified as mudpuppies.

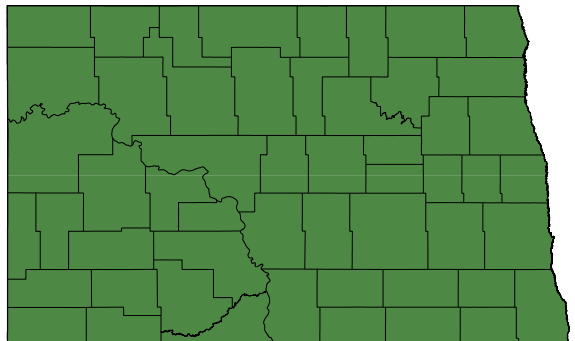
SANDRA JOHNSON



SUZANNE L. COLLINS

Tiger salamander larvae.

FUN FACT:
WE CAN LIVE TO BE
10-15 YEARS OLD.



Primary Range



CHRIS GRONDAHL



SANDRA JOHNSON



SANDRA JOHNSON

MUDPUPPY (COMMON)



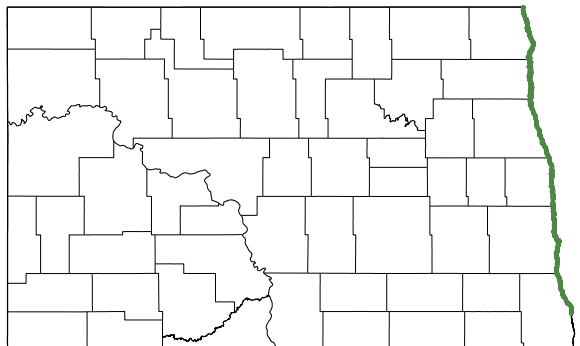
(Necturus maculosus)
Head to tail length: 8-16 inches

Mudpuppies are a type of salamander. They spend their entire lives underwater. They are easily identified by the ever-present maroon-colored external gills and four toes on each foot (tiger salamanders have five toes on each hind foot). Their coloration is a light background with dark spots. Mudpuppies are nocturnal and harmless to man. Only a handful of reported specimens have been collected and identified in North Dakota, primarily along the Red River. Mating takes place in fall and females lay up 100 eggs in spring. Mudpuppies eat a wide variety of food, including small fish, fish eggs, crayfish, aquatic insects and mollusks. Mudpuppies may be referred to as waterdogs because they make a vocalization similar to a dog's bark.



SUZANNE L. COLLINS

FUN FACT:
WE HAVE TWO ROWS OF
TEETH AND ARE SUPER
SLIMY.



 Primary Range



SUZANNE L. COLLINS



SUZANNE L. COLLINS

REPTILES

SHORT-HORNED LIZARD (GREATER)

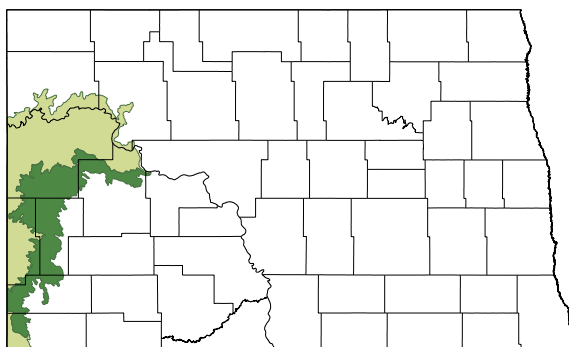


(Phrynosoma hernandesi)
Head to tail length: 3-5 inches

Short-horned lizards found in and around the badlands of western North Dakota are often referred to as “horned toads,” but they are reptiles, not amphibians. Their bodies are flat, wide and covered with protective horns and spikes. When pursued, they stop and flatten their bodies against the ground and virtually disappear. The horned lizard has a defense mechanism that allows it to squirt blood from the corners of its eyes. This mechanism, made possible by an ability to increase blood pressure in the head, is used when the lizard is threatened. Females give birth to live young, about 5-12, which are able to fend for themselves within a few hours of birth. They are found in sagebrush habitats, rocky or sparsely vegetated areas and subsist on a diet of ants, spiders and sowbugs. Short-horned lizards are active during the day.



SANDRA JOHNSON



Primary Range



Secondary Range

FUN FACT:

WE GIVE BIRTH TO
LIVE YOUNG ABOUT THE
LENGTH OF A QUARTER.



SANDRA JOHNSON



CHRIS GRONDAHL



HOBERG AND GAUSE

A juvenile short-horned lizard.

SAGEBRUSH LIZARD (NORTHERN)



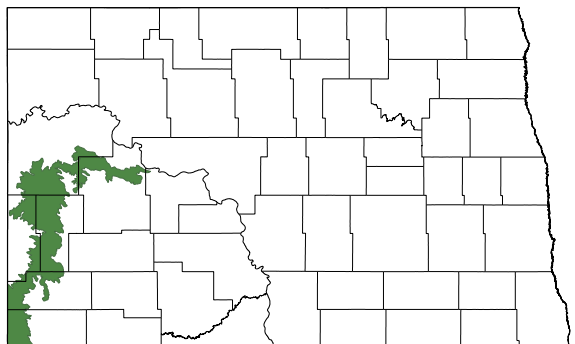
(Sceloporus graciosus)
Head to tail length: 5-6 inches

Sagebrush lizards are small, reclusive and extremely quick. This may account for the scarcity of sightings in North Dakota. Locals sometime refer to these lizards as “bluebellies” because of the bright blue patches on the undersides of males. Females have white or yellow bellies. They seem to prefer rocky areas near water and adjacent areas of sandy soil and sagebrush in the badlands. Males perform a courtship dance to attract females. The female will deposit 2-10 eggs in loose soil and may have two clutches per year. The eggs hatch in about 60 days. Sagebrush lizards eat a wide variety of insects. These lizards can drop their tail as a defense against predators.



FUN FACT:

AFTER WE DISCARD OUR TAIL TO DISTRACT A PREDATOR, IT WILL WIGGLE ON THE GROUND FOR A WHILE. LATER, THE TAIL WILL GROW BACK.



 Primary Range



CRAIG BIHRE



SANDRA JOHNSON

PRAIRIE SKINK (NORTHERN)



(*Plestiodon septentrionalis*)
Head to tail length: 5-9 inches

Prairie skinks are also known as black-banded skinks. Prairie skinks are active during summer, and are found in sandy areas such as the sand dunes and grasslands in eastern and northern North Dakota. They have smooth, shiny scales, with bands of brown and black along the length of the back. Juvenile skinks are easily identified by their bright blue tails. Females lay 8-10 eggs in a shallow nest in June/July. She guards the nest until the eggs hatch in about 40 days. Their diet includes grasshoppers, crickets, beetles, caterpillars and spiders. They can also drop their tails as a defense against predators.

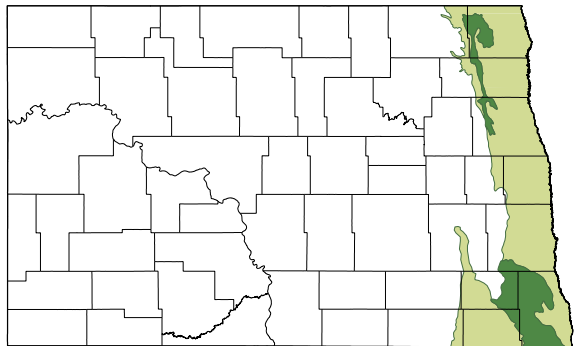


MATTHEW T. SMITH



HOBERG AND GAUSE

FUN FACT:
DON'T MESS WITH THIS MOM BECAUSE SHE DEFENDS HER NEST OF EGGS FEARLESSLY.



Primary Range



Secondary Range



SUZANNE L. COLLINS



SUZANNE L. COLLINS

PAINTED TURTLE (WESTERN)



(Chrysemys picta)

Carapace length: 4-10 inches female, 3-6 inches male

Weight: about 1 pound

Painted turtles are the most widespread turtles in the United States and are found throughout North Dakota. The undersides, or plastrons, of the painted turtle shells are what give these turtles their name. They are brightly colored, with a large black patch mottled with yellow on a red background. The backs, or carapaces, of painted turtles vary from black, to greenish or brown, and may contain a few light yellow lines on each plate. Distinctive yellow stripes adorn the head and neck. They are easily recognized while basking in the sun on rocks, stumps, or trees nearly submerged in water. They are very cautious and dive into the water when threatened. Painted turtles mate at the bottoms of wetlands in spring or fall. In June or early July, females dig nests with their hind legs and then deposit 5-20 leathery eggs. The eggs hatch in about 10 weeks. Their diet includes worms, minnows, crayfish, aquatic insects and vegetation.

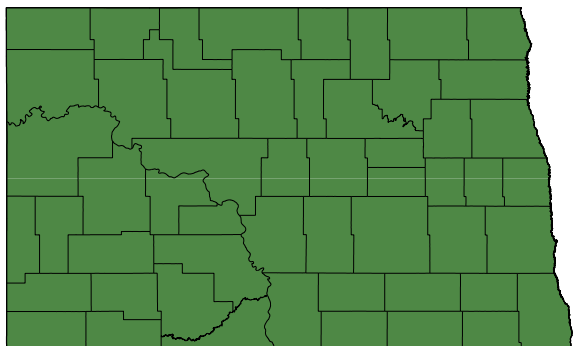


HOBBERG AND GAULSE

A juvenile painted turtle.

FUN FACT:

IF THE TEMPERATURE OF EGG INCUBATION IS AROUND 78°F, THEN WE'LL BE MALES, IF IT'S AROUND 86°F THEN WE'LL BE FEMALES. TEMPS IN BETWEEN, WE COULD BE EITHER.



Primary Range



CRAIG BIHRLE



CRAIG BIHRLE



LARA ANDERSON



CRAIG BIHRLE

SMOOTH SOFTSHELL (MIDLAND)



(*Apalone mutica*)

Carapace length: 7-14 inches female, 5-7 inches male

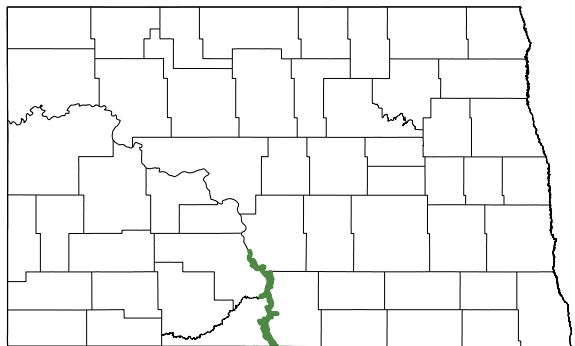
Weight: about 2-3 pounds

Smooth softshell turtles, also known as leatherbacks, are found in the Missouri River System south of Bismarck. They are characterized by their nearly circular carapace covered with a soft leathery type of skin. Shell color may vary from olive-gray to orange-brown. The underside, or plastron, is gray to creamy white. The markings on their heads consist of pale stripes on the snout in front of the eyes, and pale stripes behind the eyes, with dark borders. They lack small tubercles on the carapace, which the spiny softshell has. Females grow much larger than the males and are fully mature in seven years. They mate May to June, with the females digging out nest sites up to 12 inches deep on sand bars. One to three clutches of eggs are laid, each containing 4-33 hard-shelled eggs, and hatch 2-3 months thereafter. These turtles are strong swimmers. They swim submerged, breathing through their snorkel-like snouts. They like to sun themselves near shore, but are easily disturbed and quickly swim away. They feed primarily on crayfish and other small invertebrates. Frogs and small fish also are included in their diet.



FUN FACT:

OUR ABILITY TO USE CLOACAL RESPIRATION — OR BREATHING THROUGH OUR REAR END — HELPS US TO STAY UNDERWATER FOR UP TO 5 HOURS.



Primary Range



MATTHEW T. SMITH



PAUL BAILEY



CHRIS GRONDAHL

SPINY SOFTSHELL (EASTERN)



(Apalone spinifera)

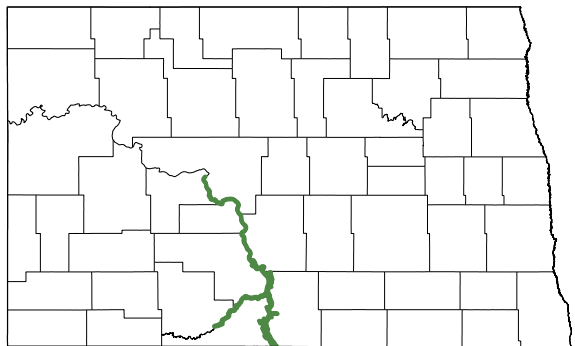
Carapace length: 8-16 inches female, 4-9 inches male

Weight: about 4-5 pounds

Spiny softshell turtles are found in the Missouri River System south of Garrison Dam. The carapace is round and olive-gray, but differs from the smooth softshell, with dark circular spots and a black line circling the entire carapace. There are spiny tubercles on the front of the carapace, which are larger on females than males. The male's carapace is rough, like sandpaper. Females reach sexual maturity at around 8-10 years of age. One to two clutches of 9-38 hard-shelled eggs are laid in an excavated nest 10 inches deep. Eggs hatch 2-3 months thereafter. Spiny softshells may live up to 50 years. Spiny softshells are more aggressive than smooth softshells and will bite and thrash around if handled. They feed on a variety of invertebrates, crayfish, fish and aquatic vegetation.



FUN FACT:
We are super aggressive when handled and can stretch our necks a long ways to try to bite you. It's best to just leave us alone!



 Primary Range



CHRIS GRONDAHL

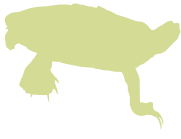


CHRIS GRONDAHL



PAUL BAILEY

FALSE MAP TURTLE

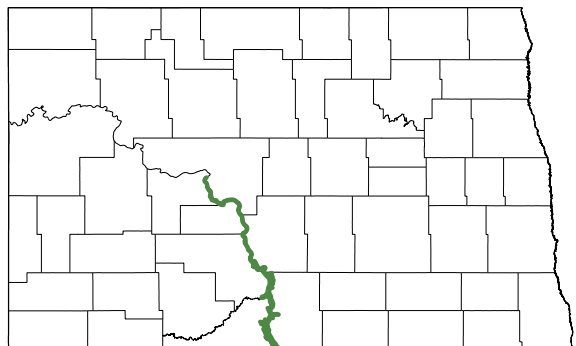


(Graptemys pseudogeographica)
Carapace length: 5-10 inches
female, 4-6 inches male
Weight: about 1.5 pounds

False map turtles are found in the Missouri River System south of Garrison Dam. They are identified by a brown carapace, with light-yellow, oval markings. They have blunt spines that project up from the midline of the carapace and the rear carapace is serrated. On the head, a light yellow stripe behind each eye is visible. The undersides, or plastrons, of false map turtles are cream to yellowish. The juveniles have an intricate pattern, whereas in the adults this pattern is absent. These wary turtles are extremely rare in North Dakota. The best opportunity to observe these turtles is during the first two weeks of June as they come out of the water in the afternoon to lay eggs in the sand. Up to three clutches of 6-16 elliptical, soft-shelled eggs are laid in a nest dug 6 inches deep. The eggs hatch about two months later. False map turtles eat aquatic vegetation, insects, worms, crustaceans, minnows and mollusks.



FUN FACT:
MALES ENTICE A FEMALE
TO BREED BY STROKING
HER HEAD AND NECK
WITH HIS FORECLAWS,
THEN DRUMS HIS
FORECLAWS OVER HER
EYES.



 Primary Range



SUZANNE L. COLLINS



PAUL BAILEY



PAUL BAILEY



HOBERG AND GAUSE

A juvenile false map turtle.

SNAPPING TURTLE



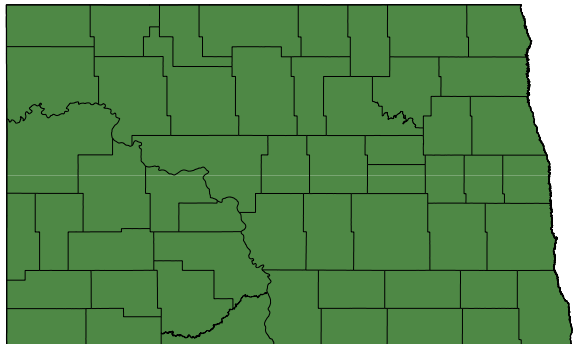
(Chelydra serpentina)

Carapace length: 7-19 inches, total body length including tail, up to 30 inches

Weight: 10-35 lbs, up to 65 pounds

Snapping turtles are common throughout North Dakota. They are black to brown when young. As they age, algae grow on their backs, or carapaces, to produce a dull greenish-black color. The undersides or the shells, or plastrons, are a light tan or light gray. Some people consider snapping turtle meat a delicacy (check with Game and Fish for current regulations). Snapping turtle heads are attached to a long extendible neck. When aggravated, snappers will open their beak-like mouths, hiss loudly and strike to defend themselves. A small branch or finger can easily be crushed by an adult's jaw. Once a snapper has clamped onto an object it hangs on. Snapping turtles enjoy warm water, with a muddy bottom and plenty of aquatic vegetation. They are often found on the margins of ponds buried in the mud of the warm shallows, with only their eyes and nostrils exposed. Snapping turtles are sexually mature at 5-7 years of age and mate at any time of the year, except during their hibernation period. Females dig nests away from the water's edge and lay 1-2 clutches of 8-90 soft-shelled eggs. Eggs hatch in 2-5 months. The diet of snapping turtles consists of invertebrates; carrion, aquatic plants, fish, amphibians, other turtles, small mammals and sometimes baby birds. They capture prey by waiting patiently in shallow water and ambushing whatever wanders or swims by. Snapping turtles are aggressive and it's best to leave them alone. Extreme caution is advised if handling is required. Never carry a snapping turtle by its tail.

FUN FACT:
WE CAN LIVE FOR 40-
50 YEARS IN THE WILD,
MAYBE LONGER!



 Primary Range



CRAIG BIHRE



MATHEW T. SMITH



CONNIE SCHIFF



MATHEW T. SMITH



HOBERG AND GAUSE

A juvenile snapping turtle.

COMMON GARTERSNAKE (RED-SIDED)

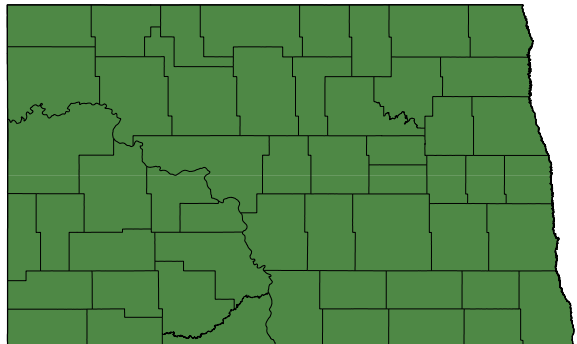
 (*Thamnophis sirtalis*)
Length: 16-26 inches

Common gartersnakes are also called garden snakes, grass snakes, or red-sided gartersnakes. They are found statewide, inhabiting the edges of woodlands, meadows, wetlands and areas around housing developments. Common gartersnakes are identified by one bright, yellow stripe down the back, alternating red/black on the side, and a yellow line on the lower sides (2nd and 3rd scale rows). These snakes hibernate in large groups in dens. Males emerge first, and as a female emerges, many males will attempt mating with her, forming a “mating ball.” Females give birth to about 20 live young, but a litter may range from 12-40. Gartersnakes feed on a variety of food items including frogs, earthworms, toads, small salamanders, insects and minnows. Gartersnakes are not aggressive, but may bite and thrash around if handled. The bite is not serious. They will also release a fowl smelling musk from their scent gland, which may require a couple of washings with soap and water to remove from your hands.



FUN FACT:

SNAKES USE THEIR FORKED TONGUES TO COLLECT CHEMICALS KNOWN AS “PHEROMONES” FROM THE AIR. A SPECIAL ORGAN INSIDE THE MOUTH INTERPRETS THE PHEROMONE SIGNALS, SUCH AS IF OTHER SNAKES ARE IN THE AREA.



 Primary Range



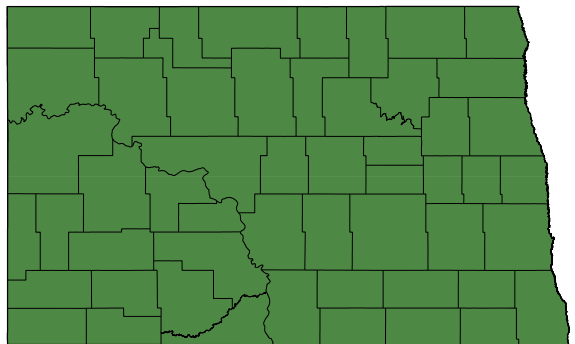
PLAINS GARTERSNAKE

(Thamnophis radix)
Length: 15-28 inches

Plains gartersnakes are more frequently encountered than the common gartersnake. These snakes are found statewide, inhabiting grasslands around marshes, pond edges, coulee bottoms and prairie potholes. They can be identified by three stripes, with the middle stripe often being bright orange or yellow. The side stripes may take on a bluish-green hue. A double row of spots between the stripes can also be found. Similar to the common gartersnake, individuals hibernate together and “mating balls” form as females emerge. The females normally give birth to about 20-40 live young, but can have over 90. Frogs and minnows make up the diet of these snakes, but they also eat a wide variety of insects.



FUN FACT:
WE ARE ABOUT 4-1/2
TO 9 INCHES LONG WHEN
BORN AND GROW ABOUT
1 CM PER WEEK DURING
OUR FIRST YEAR.



 Primary Range



LARA ANDERSON



MATTHEW T. SMITH

RED-BELLIED SNAKE (NORTHERN)

(Storeria occipitomaculata)
Length: 8-10 inches

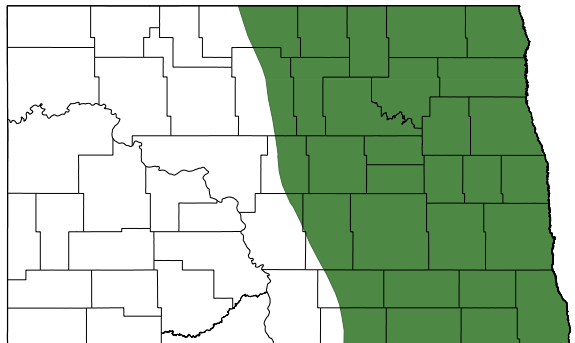
Red-bellied snakes are North Dakota's smallest snakes. Their name is appropriate as their bellies are bright red to salmon. The backs vary from light to dark brown, gray or chestnut. This coloration also makes red-bellied snakes hard to see in their habitat. They live in or around woodlands in the eastern half of North Dakota, and prefer the margins of woodlands for foraging, but will sometimes be found in open grasslands. These snakes are seldom seen due to their small size, shyness and nocturnal habits. They hide during the day under stones, boards, rotten logs, or other forest cover, and come out toward evening. These small snakes often hibernate in ant mounds during winter. They mate in spring and females give birth to about eight young, but up to 21. They will feed on small earthworms and beetle larvae, but prefer slugs.



SUZANNE L. COLLINS

FUN FACT:

IF WE FEEL THREATENED, WE WILL EXHIBIT 'LIP-CURLING' AND CURL OUR LIPS UPWARD TO SHOW OUR TINY TEETH (WHICH WE THINK LOOK REALLY SCARY TO A PREDATOR!)



Primary Range



SUZANNE L. COLLINS



SUZANNE L. COLLINS



SANDRA JOHNSON

SMOOTH GREEN SNAKE

(Opheodrys vernalis)
Length: 12-20 inches

Smooth green snakes, also known as green grass snakes, are bright green, with a white chin and belly. Their long, narrow mouths give them a smiling appearance. They may be found in moist grasslands, marshes and open woodlands across the state, except for far eastern North Dakota. These snakes are seldom seen due to their camouflage, which blends in with their grassy habitat. Females lay 3-11 eggs in decaying logs or vegetation, which hatch about one month later. They are gentle snakes and have not been known to bite or defend themselves when handled. Smooth green snakes feed on grasshoppers, caterpillars, spiders, insects and earthworms.

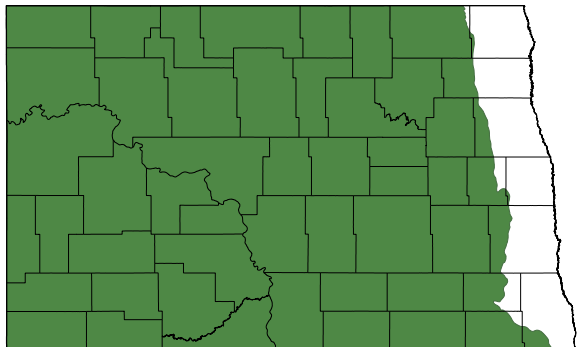


ED BRY



LARA ANDERSON

FUN FACT:
FEMALES WILL INCUBATE EGGS IN THEIR BODY FOR SOME TIME BEFORE LAYING THEM, THUS THE TIME TO HATCH MAY BE AS LITTLE AS 4 DAYS.



 Primary Range



CRAIG BIRBLE



FRED RYCKMAN



MATTHEW T. SMITH



FRED RYCKMAN

PLAINS HOG-NOSED SNAKE



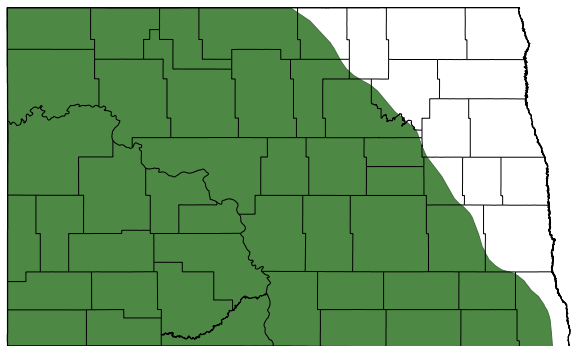
(*Heterodon nasicus*)
Length: 15-25 inches

Plains hog-nosed snakes have upturned snouts, which act like a shovel to burrow into loose soil. The coloration of their backs is tan, brown or yellowish-gray, with dark blotches and 2-3 rows of spots on their sides. Another characteristic is the pattern of large, black blotches on their bellies, extending all the way to the tail. These snakes are found statewide except in the northeast and prefer sandy, graveled areas that occur in grassland, prairie and mixed forest habitats. They are primarily active in early morning and evening hours. During the day they escape the heat by burrowing into the ground or tucking beneath mats of dead vegetation. Females may mate in the spring and fall, and lay a clutch of 4-23 eggs in soft or sandy soil just below the surface. Eggs hatch in 2-3 months. Although hog-nosed snakes are not venomous to humans, they do have venom that is released through enlarged hollow back teeth into prey. These snakes will eat almost anything they can swallow, including toads, lizards, snakes, reptile eggs, small birds and rodents. When hog-nosed snakes are disturbed, or concerned, they put on an amazing display. They will inflate their bodies, hiss loudly, open their mouths wide and attempt to strike. It is a pretty good show for a nonvenomous snake. If this display fails to deter a predator, they may roll over and play dead. It is a very convincing act, with their mouths open and tongues hanging out. These snakes will remain limp and motionless if handled. They lose their credibility when placed right side up, for they are convinced they should be dead, and immediately roll over, exposing their bellies. Hog-nosed snakes have many different names, such as puff adders, hissing adders and sand adders, to name a few. Many of these snakes are killed needlessly, being mistaken for rattlesnakes. Plains hog-nosed snakes are harmless and best left alone.



SUZANNE L. COLLINS

Playing "dead".



 Primary Range



SUZANNE L. COLLINS



CHRIS GRONDAHL

FUN FACT:
FEMALES ARE
POLYGAMOUS — THEY
WILL MATE WITH MANY
MALES.

GOPHERSNAKE (BULLSNAKE)

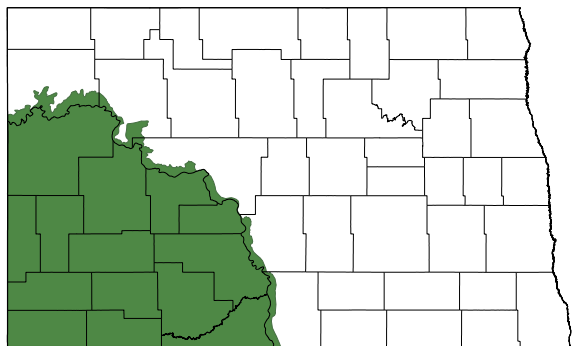
(Pituophis catenifer)
Length: 37-72 inches



Gophersnakes, or more commonly referred to as bullsnakes, are North Dakota's largest nonvenomous snakes. Their coloration is yellowish to buff-brown, with a series of black or brown blotches on the back.

The belly is yellow, with black mottling. The tail has black bands, which are inconsistent with the other markings. These snakes can be found in grasslands, meadows, river bluffs and woodland areas in southwestern North Dakota, including counties bordering the Missouri River on the east. Female bullsnakes mate in spring and lay 3-24 eggs in a sandy burrow or under large rocks or logs. Eggs hatch in 2-3 months. Bullsnakes feed mostly on rodents, although small birds and even chicken eggs may fall prey. Prey is killed by constriction and swallowed whole. The consumption of rodents makes bullsnakes beneficial to agriculture and around homes. Large bullsnakes will consume one to four small mammals a week. When disturbed, bullsnakes will try to escape without incident. If, however, they are cornered, they will hiss loudly, vibrate their tails (trying to mimic the rattlesnake), open their mouths and strike. Because of this forceful behavior, bullsnakes are sometimes killed by people who believe these snakes are dangerous or mistake them for the venomous rattlesnake.

FUN FACT:
WE CAN SWIM AND
CLIMB VERY WELL.
FEMALES DON'T REACH
SEXUAL MATURITY UNTIL
THEY ARE 4 YEARS OLD.



 Primary Range



NDGF PHOTO



MATHEW T. SMITH



CRAIG BIRKLE



MATHEW T. SMITH

RACER (EASTERN YELLOW-BELLIED)

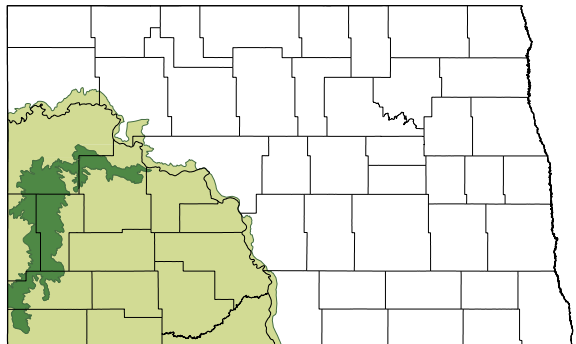
(*Coluber constrictor*)
Length: 23-50 inches

Racers are fast-moving snakes that are difficult to catch. Their speed is astounding, and it is common to see these snakes for just a moment before they vanish through the grass. They are slender snakes, with greenish-blue to gray coloration on their backs, a bright yellow belly and a white patch on their chin. Young racers have a distinctive pattern of dark blotches on a light background that slowly fades as they mature. Racers inhabit the sagebrush prairies of southwestern North Dakota and are commonly found near water. They may overwinter in dens with other snake species, including prairie rattlesnakes. Females mate in spring and lay 8-21 eggs in burrows or under logs. Eggs hatch in 2-3 months. Racers have large eyes, which aid them in pursuing prey during the day. They feed on a variety of prey including small rodents, frogs, toads, snakes, lizards, birds and bird eggs and insects.



SUZANNE L. COLLINS

A juvenile racer.



Primary Range



Secondary Range

FUN FACT:

WE SQUIRM, DEFECATE
AND BITE HARD IF
HANDLED ... THAT IS, IF
YOU CAN CATCH US.



MATTHEW T. SMITH



CHRIS GRONDAHL



FRED RYCKMAN

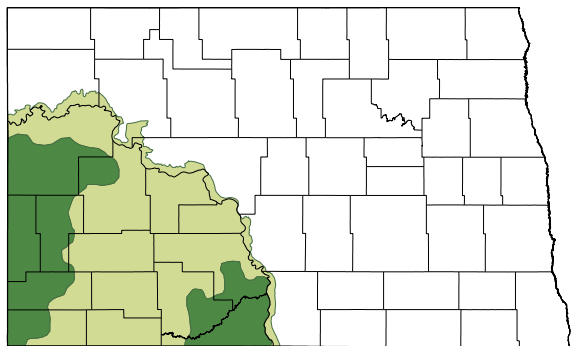
PRAIRIE RATTLESNAKE



(*Crotalus viridis*)
Length: 35-50 inches

These are North Dakota's only venomous snakes. Their color varies from greenish-gray, brown or red, to all brown. They have dark, oval blotches surrounded by white markings. Rattlesnakes are found in grasslands and sagebrush areas, as well as high rocky ledges of buttes. They are primarily found in southwestern North Dakota, but have been observed in counties bordering the Missouri River on the east. In early spring and late fall, prairie rattlesnakes hunt for food during the day. In summer months, they take shelter from the heat by finding a shaded area or rocky outcrops. There they stay until evening when they begin their nightly wait in ambush for small mammals. In winter, these snakes will hibernate together in prairie dog burrows or rocky crevices. Females mate in March to May, and in the early fall give birth to live young. An average litter contains about 12 young, but this can vary from 4-25. Young are able to fend for themselves and no parental care is given by the mother.

The unique feature that gives rattlesnakes their name is the rattle. These rattles are shaken by snakes to scare and warn potential predators. The number of rattle segments increases each time snakes shed their skin, about 1-2 times per year. Because of this you can only approximate the age of rattlesnakes by the number of segments on the rattle. Rattlesnakes are pit vipers. They use specialized organs to detect heat. These pits, found below and in front of the eye, are placed at different positions on either side of the snake's head. This makes it possible for snakes to line up prey in total darkness. Fangs are covered by a protective sheath of tissue, and are normally folded back against the roof of the mouth. Rattlesnake fangs are hollow and connected to a venom gland, which lies behind the eye. Fangs are replaced at regular intervals.



Primary Range



Secondary Range

FUN FACT:

ALTHOUGH WE LOOK
INTIMIDATING, WE ARE
NOT AGGRESSIVE AND
WOULD RATHER FLEE
FROM DANGER THAN
BITE YOU.



MATTHEW T. SMITH



MATTHEW T. SMITH

- **Bites:** When people are bitten, it is usually the result of the person handling or mistreating the snake. Less often it is the result of putting their hands or feet into hidden, obscure places. This sometimes occurs when hiking through brush or climbing among rocks and cliffs. It is important to wear protective footwear (do not wear sandals) when hiking in western North Dakota. Rattlesnake strikes rarely exceed two-thirds the length of the snake. The strike is made very quickly, with the head thrown forward, mouth open, and the forward pointing fangs driven into the victim. The venom is a powerful protein digesting enzyme, which digests the walls of blood vessels in its victims, causing bleeding into the tissue. If bitten, seek medical treatment immediately.



NDGF PHOTO



MATTHEW T. SMITH



CHRIS GRONDAHL

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